FIG. 1

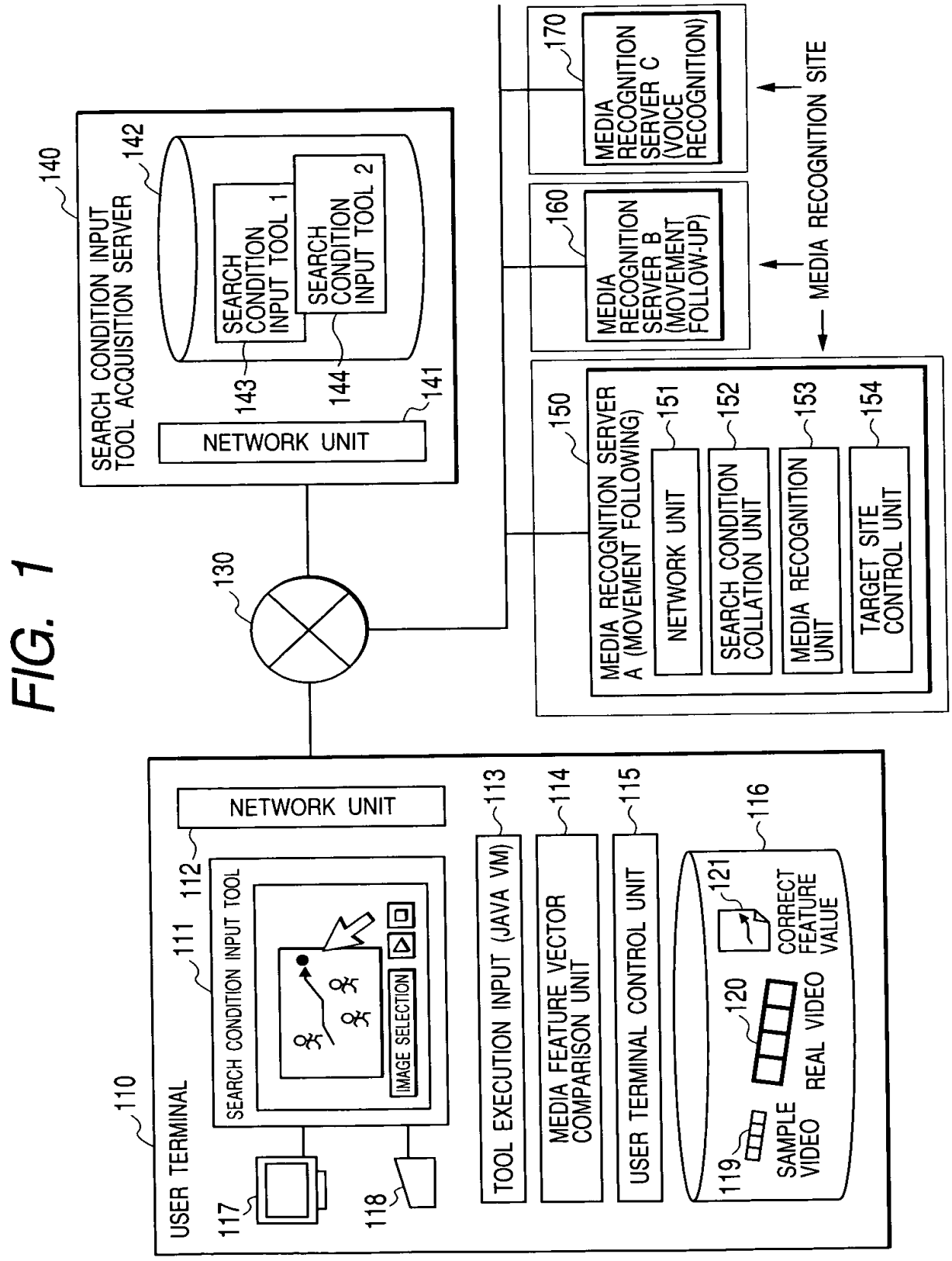

USER TERMINAL
110
NETWORK UNIT
112
SEARCH CONDITION INPUT TOOL
111
IMAGE SELECTION
117
118
TOOL EXECUTION INPUT (JAVA VM)
113
MEDIA FEATURE VECTOR COMPARISON UNIT
114
USER TERMINAL CONTROL UNIT
115
116
121
CORRECT FEATURE VALUE
120
REAL VIDEO
119
SAMPLE VIDEO
130
SEARCH CONDITION INPUT TOOL ACQUISITION SERVER
140
142
SEARCH CONDITION INPUT TOOL 1
SEARCH CONDITION INPUT TOOL 2
143
144
NETWORK UNIT
141
MEDIA RECOGNITION SERVER A (MOVEMENT FOLLOWING)
150
NETWORK UNIT
151
SEARCH CONDITION COLLATION UNIT
152
MEDIA RECOGNITION UNIT
153
TARGET SITE CONTROL UNIT
154
MEDIA RECOGNITION SERVER B (MOVEMENT FOLLOW-UP)
160
MEDIA RECOGNITION SERVER C (VOICE RECOGNITION)
170
MEDIA RECOGNITION SITE

FIG. 2

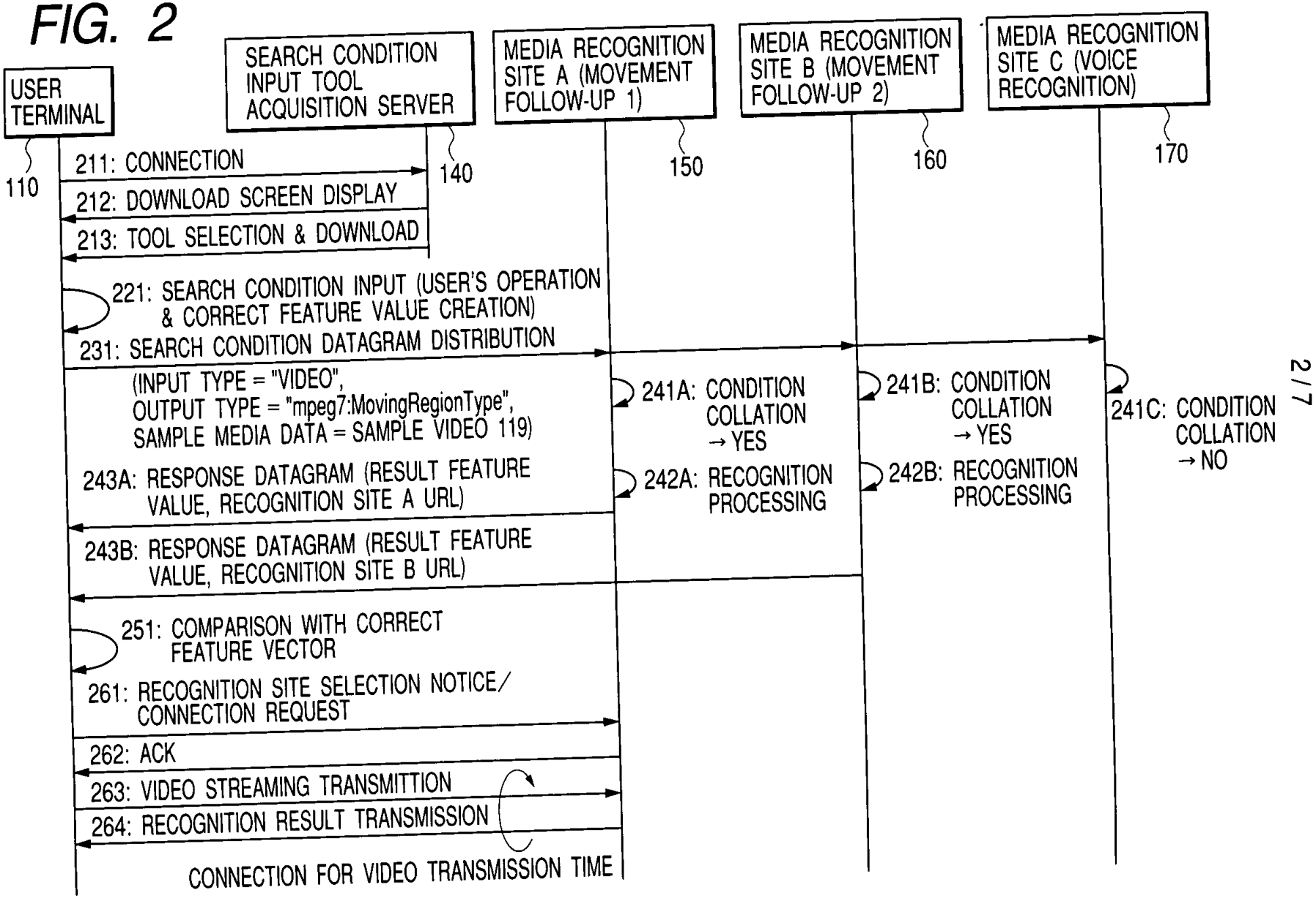

USER TERMINAL
110
SEARCH CONDITION INPUT TOOL ACQUISITION SERVER
140
MEDIA RECOGNITION SITE A (MOVEMENT FOLLOW-UP 1)
150
MEDIA RECOGNITION SITE B (MOVEMENT FOLLOW-UP 2)
160
MEDIA RECOGNITION SITE C (VOICE RECOGNITION)
170
211: CONNECTION
212: DOWNLOAD SCREEN DISPLAY
213: TOOL SELECTION & DOWNLOAD
221: SEARCH CONDITION INPUT (USER'S OPERATION & CORRECT FEATURE VALUE CREATION)
231: SEARCH CONDITION DATAGRAM DISTRIBUTION
(INPUT TYPE = "VIDEO", OUTPUT TYPE = "mpeg7:MovingRegionType", SAMPLE MEDIA DATA = SAMPLE VIDEO 119)
241A: CONDITION COLLATION → YES
241B: CONDITION COLLATION → YES
241C: CONDITION COLLATION → NO
243A: RESPONSE DATAGRAM (RESULT FEATURE VALUE, RECOGNITION SITE A URL)
242A: RECOGNITION PROCESSING
242B: RECOGNITION PROCESSING
243B: RESPONSE DATAGRAM (RESULT FEATURE VALUE, RECOGNITION SITE B URL)
251: COMPARISON WITH CORRECT FEATURE VECTOR
261: RECOGNITION SITE SELECTION NOTICE/ CONNECTION REQUEST
262: ACK
263: VIDEO STREAMING TRANSMITTION
264: RECOGNITION RESULT TRANSMISSION
CONNECTION FOR VIDEO TRANSMISSION TIME

FIG. 3

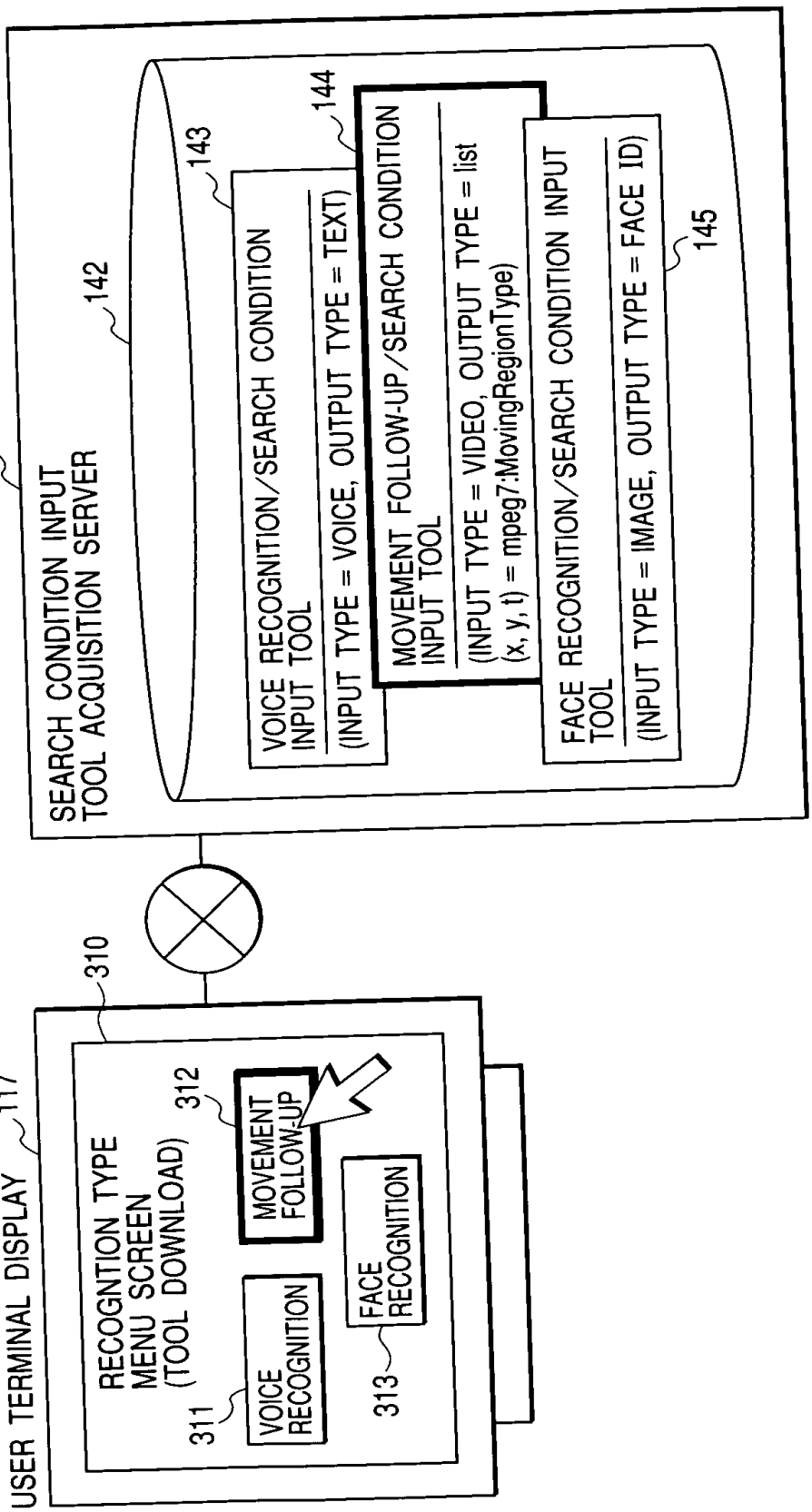

140
SEARCH CONDITION INPUT TOOL ACQUISITION SERVER
142
143
VOICE RECOGNITION/SEARCH CONDITION INPUT TOOL
(INPUT TYPE = VOICE, OUTPUT TYPE = TEXT)
144
MOVEMENT FOLLOW-UP/SEARCH CONDITION INPUT TOOL
(INPUT TYPE = VIDEO, OUTPUT TYPE = list
(x, y, t) = mpeg7:MovingRegionType)
FACE RECOGNITION/SEARCH CONDITION INPUT TOOL
(INPUT TYPE = IMAGE, OUTPUT TYPE = FACE ID)
145
310
USER TERMINAL DISPLAY
117
RECOGNTION TYPE MENU SCREEN (TOOL DOWNLOAD)
311
VOICE RECOGNITION
312
MOVEMENT FOLLOW-UP
313
FACE RECOGNITION

FIG. 4

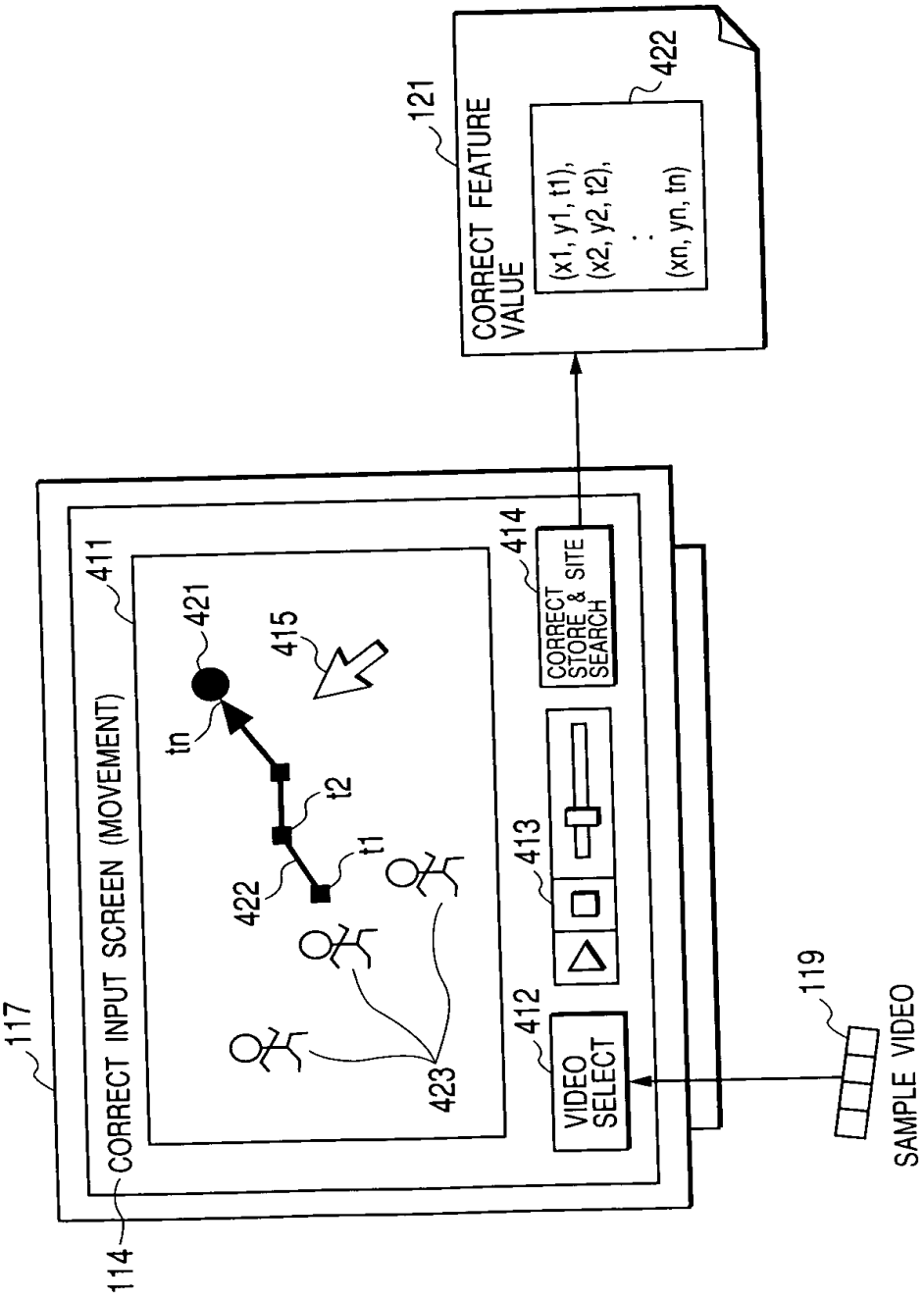

117
CORRECT INPUT SCREEN (MOVEMENT)
411
421
415
tn
t2
t1
422
423
414
CORRECT STORE & SITE SEARCH
413
412
VIDEO SELECT
114
121
CORRECT FEATURE VALUE
422
(x1, y1, t1),
(x2, y2, t2),
:
(xn, yn, tn)
119
SAMPLE VIDEO

FIG. 5

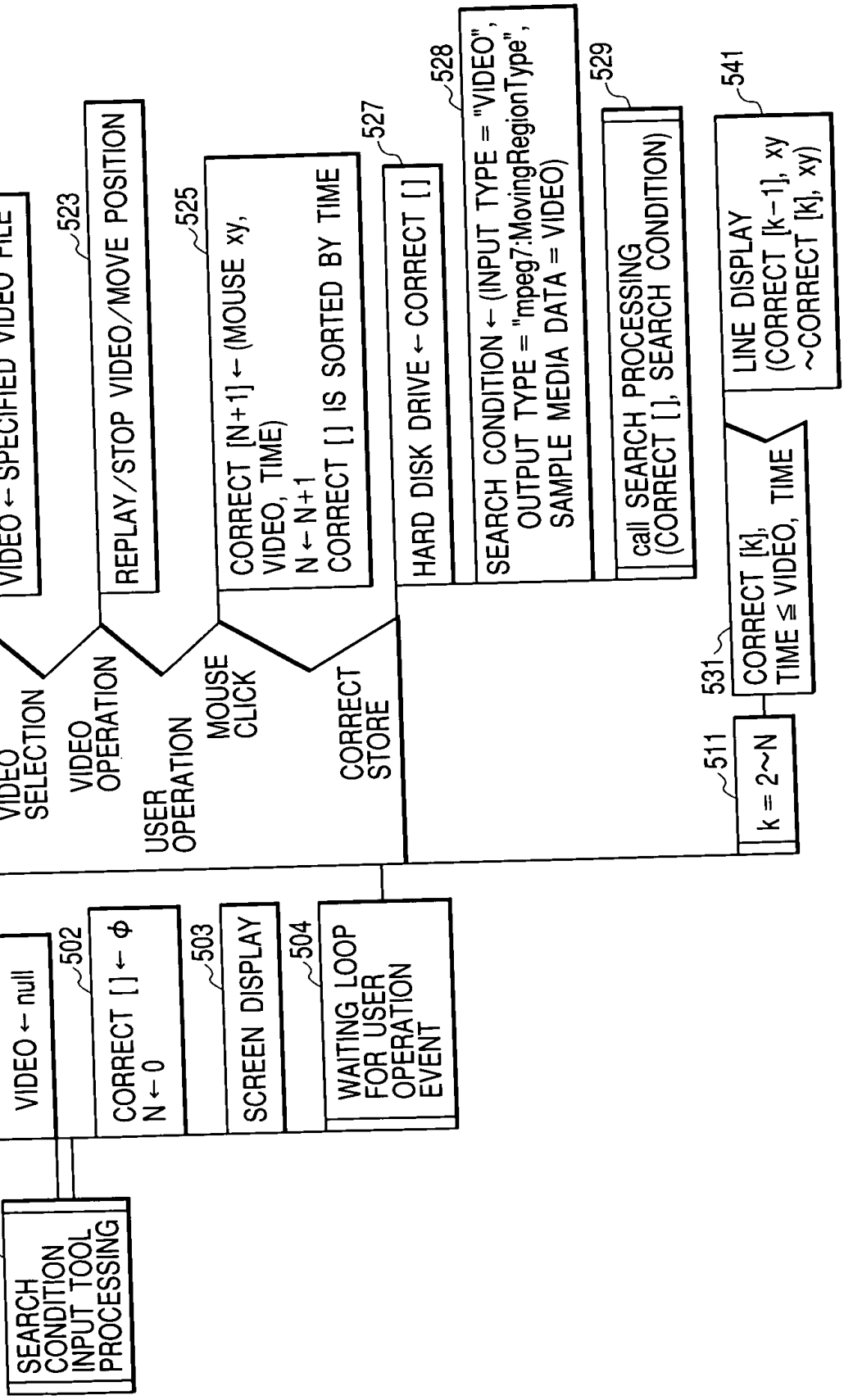

221
SEARCH CONDITION INPUT TOOL PROCESSING
501
VIDEO ← null
502
CORRECT [ ] ← φ
N ← 0
503
SCREEN DISPLAY
504
WAITING LOOP FOR USER OPERATION EVENT
510
VIDEO SELECTION
VIDEO OPERATION
USER OPERATION
MOUSE CLICK
CORRECT STORE
521
VIDEO ← SPECIFIED VIDEO FILE
523
REPLAY/STOP VIDEO/MOVE POSITION
525
CORRECT [N+1] ← (MOUSE xy, VIDEO, TIME)
N ← N+1
CORRECT [ ] IS SORTED BY TIME
527
HARD DISK DRIVE ← CORRECT [ ]
528
SEARCH CONDITION ← (INPUT TYPE = "VIDEO", OUTPUT TYPE = "mpeg7:MovingRegionType", SAMPLE MEDIA DATA = VIDEO)
529
call SEARCH PROCESSING (CORRECT [ ], SEARCH CONDITION)
511
k = 2~N
531
CORRECT [k], TIME ≦ VIDEO, TIME
541
LINE DISPLAY (CORRECT [k−1], xy ~CORRECT [k], xy)

FIG. 6

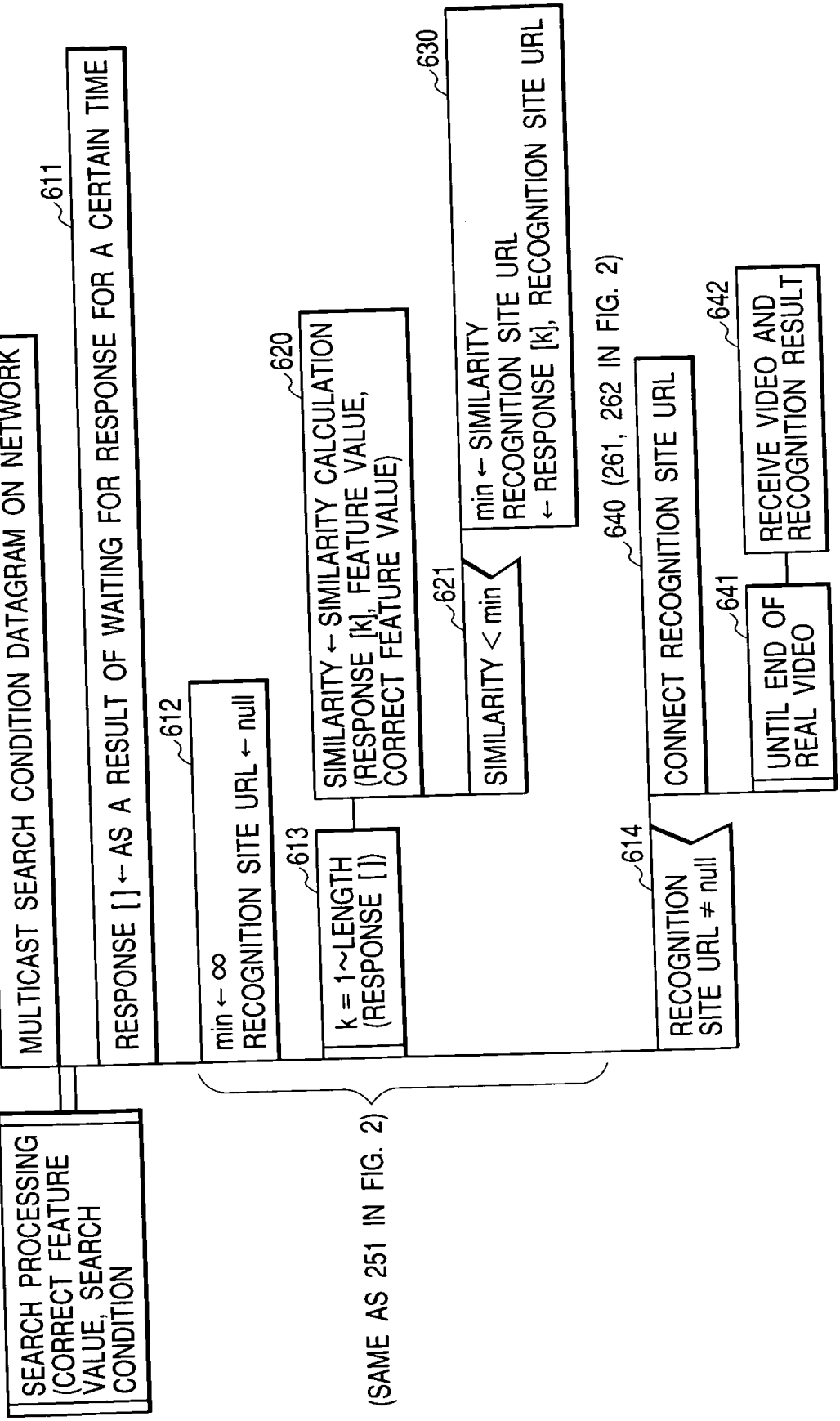
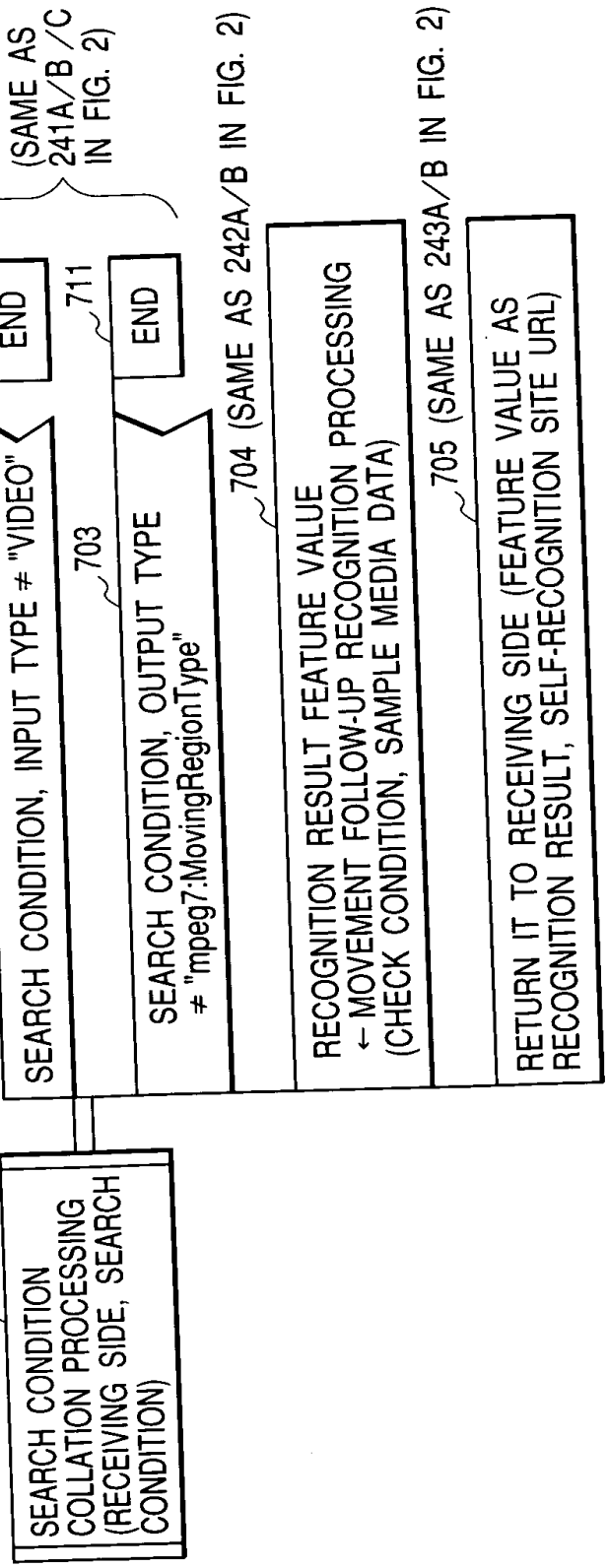

529
SEARCH PROCESSING (CORRECT FEATURE VALUE, SEARCH CONDITION
610 (SAME AS 231 IN FIG. 2)
MULTICAST SEARCH CONDITION DATAGRAM ON NETWORK
611
RESPONSE [ ] ← AS A RESULT OF WAITING FOR RESPONSE FOR A CERTAIN TIME
612
min ← ∞
RECOGNITION SITE URL ← null
613
k = 1~LENGTH (RESPONSE [ ])
620
SIMILARITY ← SIMILARITY CALCULATION (RESPONSE [k], FEATURE VALUE, CORRECT FEATURE VALUE)
621
SIMILARITY < min
630
min ← SIMILARITY
RECOGNITION SITE URL ← RESPONSE [k], RECOGNITION SITE URL
(SAME AS 251 IN FIG. 2)
614
RECOGNITION SITE URL ≠ null
640 (261, 262 IN FIG. 2)
CONNECT RECOGNITION SITE URL
641
UNTIL END OF REAL VIDEO
642
RECEIVE VIDEO AND RECOGNITION RESULT

FIG. 7


701
SEARCH CONDITION COLLATION PROCESSING (RECEIVING SIDE, SEARCH CONDITION)
702
SEARCH CONDITION, INPUT TYPE ≠ "VIDEO"
710
END
(SAME AS 241A/B /C IN FIG. 2)
703
SEARCH CONDITION, OUTPUT TYPE ≠ "mpeg7:MovingRegionType"
711
END
704 (SAME AS 242A/B IN FIG. 2)
RECOGNITION RESULT FEATURE VALUE ← MOVEMENT FOLLOW-UP RECOGNITION PROCESSING (CHECK CONDITION, SAMPLE MEDIA DATA)
705 (SAME AS 243A/B IN FIG. 2)
RETURN IT TO RECEIVING SIDE (FEATURE VALUE AS RECOGNITION RESULT, SELF-RECOGNITION SITE URL)